

DEPARTMENT OF TRANSPORTATION**DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
690 Walnut Ave. St. 150
Vallejo, CA 94592-1133
(707) 649-5453
(707) 649-5493

Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-002872**Date Inspected:** 11-Jun-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 2300**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 730**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** An Qing Xiang**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** Tower**Summary of Items Observed:**

Caltrans Quality Assurance (QA) Inspector, Ken Jobes, arrived on site at the Zhenhua Port Machinery Company (ZPMC) facility at Changxing Island, in Shanghai, China, to randomly monitor welding and Quality Control (QC) functions. While on site, the QA Inspector observed and/or discovered the following:

New Tower Bay 1

The Caltrans QA Inspector randomly observed the preheating of Weld Nos. SSD1-SA180B/E-21, 16A, 5, 15A, 19, 4A, 17, 24A, Skin Plate Face "D". The eight weld numbers are actually on one weld joint. The "A" welds are CJP and the remaining welds are PJP. They alternate CJP/PJP along the joint. The QA Inspector observed the presence of an ABF QA Inspector and three ZPMC workers. At approximately 0300 hours all personnel left without any welding being done.

The Caltrans QA Inspector also randomly observed the milling of the weld bevels on miscellaneous tower parts.

New Tower Bay 2

The Caltrans QA Inspector randomly observed the machine Submerged Arc Welding (SAW) of fill passes on Weld No. ESD1-SA77A/E-44A, Skin Plate Face "C", in the flat groove (1G) welding position. The welding operator was Wu Zhi jin (I. D. No. 062611), and the Welding Procedure Specification (WPS) No. was WPS-B-T-2221-B-U3c-S. Certified Welding Inspector (CWI), An Qing Xiang (CWI No. 07120651), was present during the welding, as was ABF QA Inspector, Kong Yian hui. The QA Inspector verified the qualifications of the

WELDING INSPECTION REPORT

(Continued Page 2 of 3)

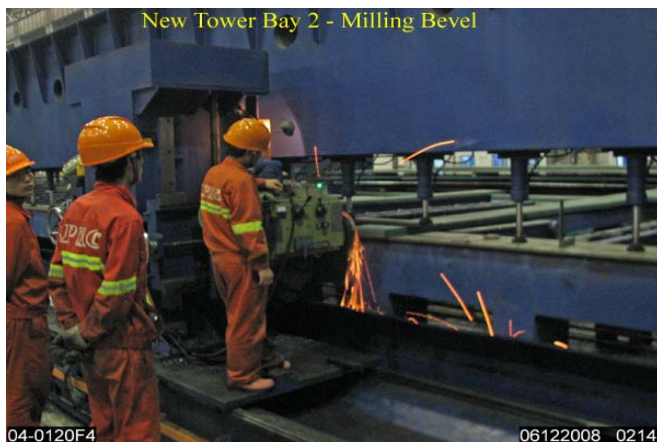
welding operator, and that the electrode/flux classification, diameter of electrode, amperage, voltage, travel speed, and preheat/interpass temperatures were within the specified ranges on the WPS.

The Caltrans QA Inspector also randomly observed the machine Submerged Arc Welding (SAW) of the root pass and fill passes on Weld No. ESD1-SA107F/J-21B, Skin Plate Face "A", in the flat groove (1G) welding position. Weld No. ESD1-SA107F/J-21A was completed earlier. The welding operator was Cao Gui mei (I. D. No. 047304) and the Welding Procedure Specifications (WPS) Nos. were WPS-B-T-2221-B-U3c-S-1 for the root pass and second pass and WPS-B-T-2221-B-U3c-S for subsequent fill passes. Certified Welding Inspector (CWI), An Qing Xiang (CWI No. 07120651), was present during the welding, as was ABF QA Inspector, Kong Yian hui. The QA Inspector verified the qualifications of the welding operator, and that the electrode/flux classification, diameter of electrode, amperage, voltage, travel speed, and preheat/interpass temperatures were within the specified ranges on the WPS.

The Caltrans QA Inspector also randomly observed the shielded metal arc welding (SMAW) of tack welds using TL-508 (E7018) electrodes. The welder was Zhai Qing shan (I. D. 202354). The Weld Nos. were ESD1-SA294G/G-58A and 53; and ESD1-SA294F/G-158, and 155, Skin Plate Face "D". The above four weld numbers are actually one joint, with alternating CJP/PJP welds along the joint. The "A" welds are CJP and the remainder are PJP welds. The QA Inspector observed preheating prior to welding and verified the qualifications of the welder to perform this work. The electrode type, TL508 (E7018) was also verified.

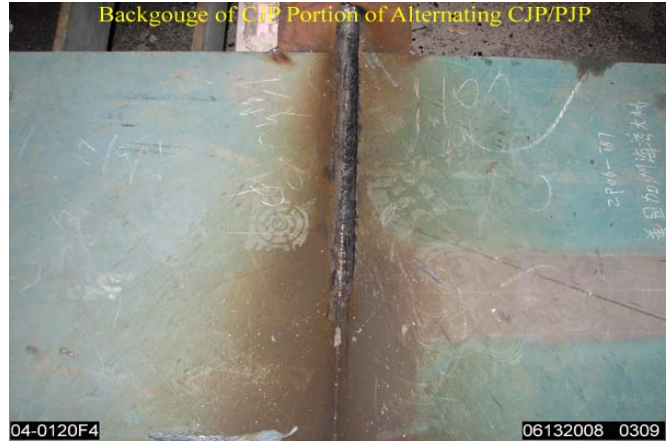
The Caltrans QA Inspector also randomly observed the milling of the weld bevels on miscellaneous tower parts.

All above observations appeared to meet the requirements of the job specifications.



WELDING INSPECTION REPORT

(Continued Page 3 of 3)



Summary of Conversations:

As identified within the contents of this report.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

Inspected By: Jobes, Kenneth

Quality Assurance Inspector

Reviewed By: Cochran, Jim

QA Reviewer